

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-22, in the reply filed on 30 October 2009 is acknowledged.

Claims 23--29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse on 30 October 2009.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The Information Disclosure Statements (IDS) submitted 7 June 2006 and 30 October 2009 have been considered by the Examiner. The IDS filed 1 September 2006 appears to be missing from the record, for a complete record the references cited on that IDS have been included on the Examiner's PTO-892. The foreign references are already part of the record and are not being sent to the Applicant.

Claim Objections

Claim 20 is objected to because of the following informalities: minor typographical error.

In claim 20, line 2, the claim recites "a'") the examiner is unclear as to the meaning. The Examiner believes it is either meant to represent - - a)- - or - - and- -. For the purposes of examination the examiner reads "a'") as - -and- -.

Appropriate correction is required.

Claim Rejections - 35 USC § 102 and 35 USC § 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1793

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 19-22 are rejected under 35 U.S.C. 102(b) as anticipated by Kijima et al., U.S. Patent U.S. 5,897,956 A.

Kijima et al. disclose a glass having the following green glass composition in terms of weight percentages: SiO₂ 68-74, Al₂O₃ 0.5-3, MgO 3-6, CaO 6-10, Na₂O + K₂O 10-16, SO₃ 0-1, TFe₂O₃ 0.53-0.70, TiO₂ 0.2-0.4, and CeO₂ 0.5-0.8 and redox of 30-40%. See Abstract and the entire specification, specifically, column 2, lines 6-13, column 3, lines 1-13, and column 3, lines 39-41. Kijima et al. disclose that the glass has a thickness from 1.7-7 mm. See column 3, lines 54-56. Kijima et al. disclose that the glass at 4 mm thickness has the following transmittances; T_{LA} at least 70%, T_s not higher than 50% and T_{uv} of not higher than 18% and a dominant wavelength of 500-515 nm and is a greenish color. See column 4, lines 33-44. The compositional and property ranges of Kijima et al. are sufficiently specific to anticipate the glass as recited in claims 1-9 and 19-22. See MPEP 2131.03. Kijima et al. disclose that the base glass has a composition in weight percentages of SiO₂ 72.2, Al₂O₃ 1.8, MgO 3.6, CaO 7.5, Na₂O 12.7, K₂O 0.6, and SO₃ 0.1. See column 6, lines 52-60. Furthermore, Kijima et al. disclose Example 6, which anticipate the composition and property ranges of claims 1, 3, 5, and 7 and Examples 7, which anticipate the composition and property ranges of claims 1-6. See Table 2.

Since the composition of the reference is the same as those claimed herein it follows that the glasses of Kijima et al. would inherently possess the properties recited in claims 1, 21, and 22. See MPEP 2112.

Products of identical composition may not have mutually exclusive properties. In re Spada 15 USPQ2d 1655,1658 (Fed. Circ. 1990).

Art Unit: 1793

Claims 1-8, 10, 12, 18, and 19 are rejected under 35 U.S.C. 102(b) as anticipated by Nagashima et al., U.S. Patent U.S. 6,046,122 A.

Nagashima et al. disclose a glass having the following green glass composition in terms of weight percentages: SiO₂ 65-80, Al₂O₃ 0-5, MgO 0-10, CaO 5-15, Na₂O 10-18, K₂O 0-5, B₂O₃ 0-5 and SO₃ 0.7-0.18, wherein the coloring components comprise TFe₂O₃ 0.40-0.90, TiO₂ 0-1, and CeO₂ 1-2 and redox of 27-40%. See Abstract and the entire specification, specifically, column 2, line 59 to column 3, line 10. Nagashima et al. disclose that the coloring portion may also contain MnO in an amount of 0-1 weight %. See column 4, lines 46-52. Nagashima et al. disclose that the glass has a thickness from 3.25-6.25 mm. See column 3, lines 27-29. Nagashima et al. disclose that the glass at a thickness range from 3.25 to 6.25 mm has the following transmittances; T_{LA} at least 70%, T_s less than 50% and T_{uv} of not higher than 10% and a dominant wavelength of 495-535 nm. See column 3, lines 27-35. The compositional and property ranges of Nagashima et al. are sufficiently specific to anticipate the glass as recited in claims 1-8, 10, 12, 18, and 19. See MPEP 2131.03. Furthermore, Nagashima et al. disclose Examples 4 and 7-9, which anticipate the composition and property ranges of claims 1-4, 6, 7, 19, and 20. See Table 1.

Since the composition of the reference is the same as those claimed herein it follows that the glasses of Nagashima et al. would inherently possess the properties recited in claim 1. See MPEP 2112.

Products of identical composition may not have mutually exclusive properties. In re Spada 15 USPQ2d 1655,1658 (Fed. Circ. 1990).

Claims 9, 11, 13, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagashima et al., U.S. Patent U.S. 6,046,122 A.

Nagashima et al. teach a glass having anticipating compositions and property ranges of claims 1-8, 10, 12, 18, and 19. See above 102(b) rejection

Nagashima et al. fail to teach any examples or ranges where glass has a thickness of less than 2.4 mm as recited in claims 9, 11, 13, 21, and 22.

Art Unit: 1793

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected a thickness less than the recited 3.25 mm taught by the reference because the reference shows being able to change the thickness of the glass within the recited range of 3.25-6.25 mm in reference to the light transmittance of the glass. See column 3, lines 27-35. One of ordinary skill in the art would know how to further reduce the thickness to less than 2.4 mm since the reference teaches having thicknesses from 3.25 to 6.25 mm. As to claims 9, 11, 13, and 21 on of ordinary skill in the art would know that the thickness of the glass does not alter the redox of the iron content in the glass. As to claims 21 and 22, since one of ordinary skill in the art would know how to adjust the glass thickness which has the anticipated composition as show in the above 102(b) rejection, one of ordinary skill in the art could adjust the thickness to satisfy the relationships related to the thickness and the TFe_2O_3 content and TCeO_2 content.

Claims 1-6, 12, 13, and 18-20 are rejected under 35 U.S.C. 102(b) as anticipated by Morimoto et al., U.S. Patent U.S. 6,046,122 A.

Morimoto et al. disclose a glass having the following green glass composition in terms of weight percentages: SiO_2 68-72, Al_2O_3 1.6-3, MgO 2-4.2, CaO 8.5-11, Na_2O 12-16, K_2O 0.5-3, and SO_3 0.8-0.30, wherein the coloring components comprise TFe_2O_3 0.58-0.80, TiO_2 0.1-0.4, CeO_2 0.1-0.6, and MnO 5-350ppm and redox of 0.3-0.7. See Abstract and the entire specification, specifically, column 2, lines 25-38, and column 3, lines 3-8. Morimoto et al. disclose that the glass has a thickness from 1-10 mm. See column 3, lines 20-22. Morimoto et al. disclose that the glass is green at a thickness 5 mm has the following transmittances; T_{LA} at least 67%, T_s 30-47%, and T_{uv} of 7-15 % and a dominant wavelength of 55-518 nm. See column 2, lines 42-50. The compositional and property ranges of Morimoto et al. are sufficiently specific to anticipate the glass as recited in claims 1-6, 12, 13, and 18-20. See MPEP 2131.03. Furthermore, Morimoto et al. disclose Examples 1-3, which anticipate the composition and property ranges of claims 1, 2, 4-6, and 18-20. See Column 7, line10 to column 8, line 54.

Since the composition of the reference is the same as those claimed herein it follows that the glasses of Morimoto et al. would inherently possess the properties recited in claim 1. See MPEP 2112.

Products of identical composition may not have mutually exclusive properties. In re Spada 15 USPQ2d 1655,1658 (Fed. Circ. 1990).

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto et al., U.S. Patent U.S. 6,046,122 A.

Morimoto et al. teach a glass having anticipating compositions and property ranges of claims 1-6, 12, 13, and 18-20. See above 102(b) rejection

Morimoto et al. fail to teach any examples or thickness to component relationship as recited in claims 21 and 22.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected a thickness less than the recited 5 mm taught by the reference because the reference shows being able to change the thickness of the glass within the recited range of 1-10 mm. See column 3, lines 20-23. One of ordinary skill in the art would know how to further reduce the thickness to less than 5 mm since the reference teaches having thicknesses from 1-10 mm. As to claims 21 and 22, since one of ordinary skill in the art would know how to adjust the glass thickness which has the anticipated composition as show in the above 102(b) rejection, one of ordinary skill in the art could adjust the thickness to satisfy the relationships related to the thickness and the TFe_2O_3 content and TCeO_2 content.

Claims 1, 2, 4, 5, 14, 15, 16, 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as anticipated by Gulotta et al., U.S. Patent U.S. 5,240,886A.

Gulotta et al. disclose a glass having the following green glass composition in terms of weight percentages: SiO_2 68-75, Al_2O_3 0-5, MgO 0-5, CaO 5-15, Na_2O 10-20, K_2O 0-5, and SO_3 , wherein the coloring components comprise TFe_2O_3 greater than 0.85 and CeO_2 less than 0.5, and redox of less than 0.275. See Abstract and the entire specification, specifically, column 1, lines 18-46, and column 2, lines 55-69. Gulotta et al. disclose that the glass is green at a thickness 3.9 mm has the following transmittances;

Art Unit: 1793

TLA at least 70% and T_{uv} of no more than 31%. See column 2, lines 49-53. The compositional and property ranges of Gulotta et al. are sufficiently specific to anticipate the glass as recited in claims 1, 2, 4, 5, 14, 15, 16, 17, 19, and 20. See MPEP 2131.03. Furthermore, Gulotta et al. disclose Examples 1-3, 6, and 7, which anticipate the composition and property ranges of claims 1, 5, and 19 and Example 5, which anticipate the composition and property ranges of claims 1, 2, 5, and 19. See column 3, lines 10-54 and column 4, lines 20-35.

Since the composition of the reference is the same as those claimed herein it follows that the glasses of Gulotta et al. would inherently possess the properties recited in claim 1. See MPEP 2112.

Products of identical composition may not have mutually exclusive properties. In re Spada 15 USPQ2d 1655,1658 (Fed. Circ. 1990).

Claims 1-8, 10, 14, 19, and 20 are rejected under 35 U.S.C. 102(b) as anticipated by Cheng, U.S. Patent U.S. 5,077,133A.

Cheng discloses a glass having the following green glass composition in terms of weight percentages: SiO_2 65-75, Al_2O_3 0-3, MgO 1-5, CaO 5-15, Na_2O 10-15, K_2O 0-4, and SO_3 0.14, wherein the coloring components comprise TFe_2O_3 0.51-0.96 and CeO_2 0.2-1.4 and redox of 23-29%. See Abstract and the entire specification, specifically, column 3, lines 40-47, column 5, lines 33-44, column 6, lines 45-46, and column 9, line 17. Cheng discloses that the glass has a thickness from 3-5 mm. See column 3, lines 37-39. Cheng discloses that the glass at a thickness range from 3-5mm has the following transmittances; TLA at least 70%, T_s less than 46% and T_{uv} of not higher than 38% and a dominant wavelength of 498-525 nm. See column 3, lines 33-51. The compositional and property ranges of Cheng are sufficiently specific to anticipate the glass as recited in claims 1-8, 10, 14, 19, and 20. See MPEP 2131.03. Furthermore, Cheng discloses Examples 5 and 6, which anticipate the composition and property ranges of claims 1, 2, 4, 5, 7, 10, 19, and 20, Examples 4 and 11, which anticipate the composition and property ranges of claims 1, 2, 5, 7, 10, 19, and 20, Examples 5 and 6, which anticipate the composition and property ranges of claims 1, 2, 5, 7, 19, and 20, Examples 7, 8, 10, 12, and 20, and Examples 9 and 16-19, which anticipate the composition and property ranges

Art Unit: 1793

of claims 1, 5, 19, and 20 which anticipate the composition and property ranges of claims 1, 2, 5, 19, and 20. See Table III.

Since the composition of the reference is the same as those claimed herein it follows that the glasses of Cheng would inherently possess the properties recited in claim 1. See MPEP 2112.

Products of identical composition may not have mutually exclusive properties. In re Spada 15 USPQ2d 1655,1658 (Fed. Circ. 1990).

Claims 9, 11, 15, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng, U.S. Patent U.S. 5,077,133A.

Cheng teaches a glass having anticipating compositions and property ranges of claims 1-8, 10, 14, 19, and 20. See above 102(b) rejection

Cheng fails to teach any examples or ranges where glass has a thickness of less than 2.4 mm as recited in claims 9, 11, 15, 21, and 22.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected a thickness less than the recited 3 mm taught by the reference because the reference shows being able to change the thickness of the glass within the recited range of 3-5 mm in reference to the light transmittance of the glass. See column 3, lines 33-51. One of ordinary skill in the art would know how to further reduce the thickness to less than 2.4 mm since the reference teaches having thicknesses from 3-5 mm. As to claims 9, 11, 15, and 21 one of ordinary skill in the art would know that the thickness of the glass does not alter the redox of the iron content in the glass. As to claims 21 and 22, since one of ordinary skill in the art would know how to adjust the glass thickness which has the anticipated composition as shown in the above 102(b) rejection, one of ordinary skill in the art could adjust the thickness to satisfy the relationships related to the thickness and the TFe_2O_3 content and TCeO_2 content.

Conclusion

The additional references cited on the 892 have been cited as art of interest since they are considered to be cumulative to or less than the art relied upon in the rejections above.

Art Unit: 1793

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH A. BOLDEN whose telephone number is (571)272-1363. The examiner can normally be reached on 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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EAB
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